

absence of any evidence that it is specifically identical with any described *Equisetum*, I distinguish it as *E. rotiferum*.

Nothing approaching the spore-bearing spikes was seen by me, so that the fructification must remain unknown for the present.

True *Phyllothea* have not been met with by me in these beds.

OBSERVATIONS ON AN INSECT INJURIOUS TO THE VINE.

BY WILLIAM MACLEAY, F.L.S., &c.

At the last monthly meeting of this Society I exhibited some Coleopterous larvæ which had been found by Mr. Holroyd to have committed very serious havoc among his grape-vines. I also exhibited cuttings of the injured plants, showing the pith or centre of the branch completely eaten away along the entire length of the season's wood, with, in some cases, the devastation extending into the old wood and the roots. I said at the time that the grub was the larva of a Curculionidous beetle, but that until I had seen the perfect insect, I could not possibly tell the species or even genus, so much alike were all the larvæ of that group. I am now, however, able to speak positively on the subject.

A few days ago Mr. Holroyd brought me several specimens of both sexes, some—in *coitu*, of a beetle taken by his gardener out of the injured plants, and which are most undoubtedly the outcome of the grubs which had caused all the injury. I find them to be specimens of *Orthorhinus Klugii*, of Schönherr.

The genus *Orthorhinus* numbers about 20 species, and is found only in Australia and a few of the Polynesian Islands. The description of it, translated from Lacordaire's "Genera des Coleopteres, vol. 6, p. 462," is as follows: "Head subglobulose; rostrum much narrower than the head, rather robust, straight, cylindrical, longer than the head. Antennæ of moderate length,

and slight; scape not thicker at the tip; funiculus of seven joints, obconic, first and second elongate, from the third to the seventh of variable length, getting gradually thicker; the club oval, articulated. Eyes large, vertical, sinuated beneath. Thorax scarcely or not transversal, rounded at the sides, slightly bisinuated at the base, bulging out anteriorly, with the anterior border more or less prominent, and profoundly sinuated on the antero-inferior border. Scutellum of a curvilinear-triangle form. Elytra subcylindrical, rather wider than the thorax, and very slightly sinuate at their base. The anterior legs elongated, in the males particularly, slightly separated; tibiæ robust, compressed, bisinuated in front, and strongly pointed at their extremity; tarsi spongy beneath, with the third joint much larger than the first and second, the fourth of medium size, the claws of variable length; the second abdominal segment much larger than the third and fourth united, separated from the first by a strongly arcuated suture. Mesothoracic epimera rather large. Body oblong, unequal, scaly.

The species *O. Klugii* was first described in Schönherr's great work on the Curculionidæ, Vol. 3, p. 246, though it seems to have been known previously to Hope, as Schönherr acknowledges having received the insect from Hope with the name attached. The specific characters given to the species by Schönherr are here translated:

“Oblong, black, clothed above with deep brownish-red scales, and beneath with lighter reddish-brown; rostrum rather slender, rugose-punctate; thorax oblong, remotely and obsoletely tuberculated, in front bifasciculated, with a patch in front of the scutellum of a reddish-brown; the elytra finely striate-punctate, marked with a transverse, oblique, reddish fascia, the alternate interstices rather elevated, and with four rather large fasciculated tubercles.” The average length of the species is (female) eight millimetres; and the greatest width three millimetres. The male is about half that size.

My cabinet contains specimens of the species from all the Australian Colonies, from which it may be inferred that it is an insect of wide distribution, I have never however, until now known of its being noticed for its destructive tendencies. This however, may only be an evidence of want of observation, for other better known species of the genus are extremely destructive to fruit and forest trees. The largest species, of the genus—*Orthorhinus cylindrirostris* is very common, and sometimes very injurious. I can well remember more than twenty years ago a number of fine Pine trees at Elizabeth Bay being killed through the agency of this beetle. But in truth all of the genus must be from their habits necessarily destructive, whenever from some cause or another they become more than usually numerous. Their nearest ally in Europe the common *Hylobius abietis* has become more than once for a time so numerous as to threaten with extinction the Fir Forests of Northern Europe. I am not aware what the native trees or plants are which *O. Klugii* feeds on or used to feed on, but it seems more than likely that if it takes kindly to an introduced plant like the Grape Vine, it may develop into a very serious pest. The experience of another season will enable us to judge with more accuracy of the amount of injury which these insects are capable of inflicting, than we possibly can at present.

In the meantime it is most desirable that vignerons and horticulturists generally, should watch for the appearance of the perfect insect, which is *now* issuing from the pupa state, and take particular note of what plants it shows a preference for, as it is possible that the Grape Vine may not be the only product of the Orchard which suits its taste.

The beetle itself does no harm, but it fixes itself upon a plant which its instinct tells it to be suitable for the support of its larva, bores in it a minute hole with its long rostrum and therein introduces an egg. When the larva is full fed, which seems to

be at the end of the season, it changes into the pupa state, and in early spring emerges into the perfect beetle, when it bores a hole for its escape. There can, I should say, be very little difficulty under such circumstances, in keeping down the number of these insects, a little care in the pruning season in cutting out all the infected branches, and the immediate burning of them, would almost ensure the complete destruction of the pest, if their ravages were confined to the Grape Vine, but as I mentioned before, there may be other plants or trees liable to their attack, and to ascertain what these are, must necessarily accompany any effort to clear an Orchard of the insects.

NOTES AND EXHIBITS.

The Rev. J. E. Tenison-Woods exhibited the specimens of fossil *Equisetum* referred to in his paper; also a very large specimen of *Aphanaia gigantea*, De Kon., the second which has been discovered; two specimens of *Aphanaia Mitchelli*, M'Coy; *Spirifer glaber*, W. Martin; *Pleurophorus Tenisoni*, De Kon.; and a specimen of fossil coniferous wood. These fossils, with the exception of the *Equisetum*, which was obtained in the Tivoli mine, Ipswich, were found in the lower marine palaeozoic strata at the quarries, Cemetery Hill, West Maitland. Mr. Tenison-Woods also exhibited a beautiful specimen of a Hydroid zoophyte (*Sertularia*), with attached *Eschara*, obtained by an amateur fisherman off Bondi, and forwarded for exhibition by William Cameron, Esq.

Mr. E. P. Ramsay exhibited bracelets from Fiji, the Solomon Group, and Bougainville Island, all cut from large shells. The specimens from the Solomon Islands were cut from a species of *Spondylus*, and the large Fiji specimens were ground down from solid masses of the large *Tridacna*; also a remarkable horned lizard, from America, presented to the Museum by Mr. Webster.